

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-3. (Cancelled)

4. (Currently Amended) A non-contact position sensor comprising:

a slider having a magnet having a front face along a longitudinal direction of the magnet that has one polarity and a back face along the longitudinal direction of the magnet that has an opposite polarity;

a main stator consisting of a magnetic body having a first pair of opposed walls forming an area in which the slider enters while keeping a predetermined clearance, the first pair of opposed walls corresponding to the front and back faces of the magnet, and a first gap continuing into the opposed walls;

a magnetically-sensitive sensor arranged in the first gap to detect a position of the slider corresponding to a percentage of the magnet entering the area; and

an assist stator for preventing magnetic flux, which is generated in a part of the magnet that does not enter the area, from leaking out to the main stator, wherein

the assist stator has a second pair of opposed walls corresponding to front and back faces of the part of the magnet that does not enter the area and transverse walls extending from the second pair of opposed walls which are separated from each other through a second gap formed between the transverse walls, wherein

the first and second gaps are formed uniformly along a moving direction of the slider, respectively.

5.-6. (Cancelled)

7. (Currently Amended) A non-contact position sensor comprising:

a slider having a magnet having a front face along a longitudinal direction of the

magnet that has one polarity and a back face along the longitudinal direction of the magnet that has an opposite polarity;

a main stator consisting of a magnetic body having a first pair of opposed walls forming a first area in which the slider enters while keeping a predetermined clearance, the first pair of opposed walls corresponding to the front and back faces of the magnet, and a first gap continuing into the opposed walls;

an assist stator consisting of a magnetic body having a second pair of opposed walls forming a second area which allows the slider to move while keeping a predetermined clearance and transverse walls extending from the second pair of opposed walls which are separated from each other through a second gap formed between the transverse walls, wherein there is a third gap between the assist stator and the main stator; and

a magnetically-sensitive sensor arranged in the first gap to detect a position of the slider corresponding to a percentage of the magnet entering the first area, wherein

the first and third gaps are formed uniformly along a moving direction of the slider, respectively.

8.-19. (Cancelled)

20. (Previously Presented) The non-contact position sensor of claim 4, wherein the magnetically-sensitive sensor is provided in a direction perpendicular to a moving direction of the slider.

21. (Previously Presented) The non-contact position sensor of claim 7, wherein the magnetically-sensitive sensor is provided in a direction perpendicular to a moving direction of the slider.